## SPLIT HEAT PUMPS

| TAG # INDOOR | TAG # OUTDOOR | SERVES | COOLING CAPACITY TONS | SUPPLY FAN DATA CFM | SUPPLY FAN DATA WATTS | COOLING DATA (95°F AMBIENT) TOTAL MBH | SENSIBLE MBH | COOLING AIR DATA ENT. DB (°F) | ENT. WB (°F) | SEER | HEAT PUMP HEATING DATA (47°F AMBIENT) HEATING MBH | HEATING AIR DATA ENT. DB (°F) | FILTERS TYPE | INDOOR ELECTRIC MCA | INDOOR WEIGHT LBS | OUTDOOR ELECTRIC VOLTAGE | PHASE | MCA | HACR | OUTDOOR WEIGHT LBS | OUTDOOR SOUND dBA | MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-1 | HP-1 | LIBRARY | 2.0 | 630 | 55 | 22.1 | 19.5 | 80 | 67 | 18.9 | 15.0 | 70 | WASHABLE | POWERED THROUGH OUTDOOR UNIT | 1 | 37 | 230 | 1 | 42 | 50 | 276 | 54 | MITSUBISHI MSZ-GL24NA INDOOR, MITSUBISHI MXZ-8C48AHZ OUTDOOR | 1,2,3,4 |
| FC-2 | HP-1 | LIBRARY | 2.0 | 630 | 55 | 22.1 | 19.5 | 80 | 67 | 18.9 | 15.0 | 70 | WASHABLE | POWERED THROUGH OUTDOOR UNIT | 1 | 37 | - | - | - | - | - | - | MITSUBISHI MSZ-GL24NA INDOOR | 1,2,4 |
| FC-3 | HP-3 | COMMUNITY | 3.0 | 920 | 56 | 33.0 | 20.4 | 80 | 67 | 14.0 | 20.0 | 70 | WASHABLE | POWERED THROUGH OUTDOOR UNIT | 1 | 46 | 230 | 1 | 25 | 40 | 165 | 50 | MITSUBISHI PKA-A36KA6 INDOOR, PUZ-A36NHA6 OUTDOOR | 2,3,4 |
| FC-4 | HP-4 | COMMUNITY | 3.0 | 920 | 56 | 33.0 | 20.4 | 80 | 67 | 14.0 | 20.0 | 70 | WASHABLE | POWERED THROUGH OUTDOOR UNIT | 1 | 46 | 230 | 1 | 25 | 40 | 165 | 50 | MITSUBISHI PKA-A36KA6 INDOOR, PUZ-A36NHA6 OUTDOOR | 2,3,4 |
| FC-5 | HP-5 | OFFICE | 0.5 | 220 | 30 | 1.4 | 1.0 | 80 | 67 | 33.1 | 6.2 | 70 | WASHABLE | POWERED THROUGH OUTDOOR UNIT | 1 | 29 | 230 | 1 | 11 | 15 | 81 | 48 | MITSUBISHI MSZ-FH06NA INDOOR, MITSUBISHI MUZ-FH06NA OUTDOOR | 2,3,4 |

NOTES:
1. INDOOR UNITS FC-1 AND FC-2 WILL USE SAME OUTDOOR UNIT HP-1 AND SPLITTLER BOX MITSUBISHI PAC-MKA30BC
2. PROVIDE HIGH CONDENSATE LEVEL STOP SWITCH ON EACH INDOOR UNIT. PROVIDE MANUFACTURER'S SEACOAST PROTECTION AND AIR OUTLET GUIDE FOR OUTDOOR UNIT
3. PROVIDE VENDORS COATED DRIP PROTECTION ABOVE EACH OUTDOOR UNIT.
4. PROVIDE MANUFACTURER'S CONTROL ADAPTER FOR HEAT PUMP OPERATION FROM STANDARD 24VAC THERMOSTAT TERMINALS. MITSUBISHI PAC-US444CN-1.

MANUFACTURER SHALL BE MITSUBISHI ELECTRIC. NO SUBSTITUTIONS WILL BE ACCEPTED.

## HEAT RECOVERY VENTILATORS

| TAG # | TYPE | OUTSIDE AIR (WINTER) CFM | EAT (°F) | LAT (°F) | FAN ESP | RELIEF AIR (WINTER) CFM | EAT (°F) | LAT (°F) | FAN ESP | ELECTRICAL MCA | MOP | VOLTS/PHASE | WEIGHT LBS. | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HRV-1 | PLATE | 330 | -20 | 47 | .75 | 380 | 70 | 3 | .75 | 9.0 | 15 | 230/1 | 250 | RENEWAIRE 4EV50JIN | 1 |
| | | | | | | | | | | | | | | | - |

NOTES: 1. PROVIDE WITH MANUFACTURERS SOLID STATE FAN SPEED CONTROL. WHITE FINISH COAT. BACKDRAFT DAMPERS AND TWO (2) CEILING MOTION DETECTORS

## OUTDOOR AIR FAN COIL

| TAG # | SERVES | DESIGN OA CFM | SUPPLY FAN DATA CFM | ESP (IN. W.C.) | HEATING DATA TOTAL MBH | EAT (°F) | HYDRONIC DATA GPM | MAX. PRESS DROP FT W.C.) | FILTERS TYPE | THICKNESS | MERV | INDOOR ELECTRIC VOLTAGE | PHASE | MCA | HACR | INDOOR WEIGHT LBS | MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OAFC-1 | COMMUNITY | 915 | 915 | 0.06 | 78.5 | 0 | 3.5 | 6.0 | 1 | 1" | 5 | 230 | 1 | 3.7 | 15 | 145 | TRANE FORCFLO-1 FFCB10 - SIZE 100 | 1,2,3 |

NOTES:
1. HORIZONTAL, CONCEALED BACK DUCT COLLAR INLET, FRONT DUCT COLLAR OUTLET
2. PROVIDE WITH MANUFACTURER'S ALUMINUM OUTDOOR AIR WALL BOX. SEE LOUVER SCHEDULE.
3. PROVIDE WITH MANUFACTURERS UNIT MOUNTED LOCAL FAN SPEED CONTROL SWITCH OFF/HIGH/MEDIUM/LOW
TYPICAL MANUFACTURER AND MODEL ARE FOR REFERENCE ONLY. PRODUCTS FROM OTHER MANUFACTURERS THAT MEET THE PERFORMANCE AND SPECIFICATION REQUIREMENTS ARE ALSO ACCEPTABLE.

## LOUVERS

| TAG # | TYPE | SERVES | CFM | SP (IN. WC) | FREE AREA (SQ. FT) | SIZE | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|
| L-1 | INTAKE WALL BOX | OAFC-1 | 915 | 0.05 | 3.05 | 58"WX7 1/2"H | TRANE WALL BOX FOR SIZE 10 CABINET UNIT HEATER | 1,2 |
| L-2 | COMBINATION, GRAVITY | OAFC-1 RELIEF | 915 | 0.05 | 3.05 | 30"WX36"H | RUSKIN ELBD375E | 1,2 |

NOTES:
1. ARCHITECT TO CHOOSE FINISH COLOR FROM MANUFACTURER'S STANDARD PALETTE
2. PROVIDE INTERIOR INSECT SCREEN

## CABINET UNIT HEATERS

| TAG # | SERVES | TYPE | SUPPLY FAN DATA CFM | RPM | | HEATING DATA TOTAL MBH | EAT (°F) | HYDRONIC DATA GPM | MAX. PRESS DROP (FT W.C.) | FILTERS TYPE | INDOOR ELECTRIC VOLTAGE | PHASE | MCA | HACR | INDOOR WEIGHT LBS | MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CUH-1 | LIBRARY | RECESSED, INVERTED FLOW | 505 | - | | 32.0 | 68 | 2.0 | 1.0 | PERMANENT | 120 | 1 | 1.4 | 15 | 157 | VULCAN RWI-1130-06 | 1,2,3 |
| CUH-2 | LOBBY | RECESSED, INVERTED FLOW | 430 | - | | 32.0 | 68 | 2.0 | 1.5 | PERMANENT | 120 | 1 | 1.4 | 15 | 128 | VULCAN RWI-1130-04 HIGH CAPACITY COIL | 1,2,3 |

NOTES:
1. INVERTED FLOW
2. PROVIDE EACH CABINET UNIT HEATER WITH LOCAL VARIABLE FAN SPEED CONTROL ACCESSIBLE THROUGH ACCESS DOOR IN THE CUH CABINET.
3. ARCHITECT TO CHOOSE FINISH COLOR FROM MANUFACTURER'S STANDARD PALETTE.
TYPICAL MANUFACTURER AND MODEL ARE FOR REFERENCE ONLY. PRODUCTS FROM OTHER MANUFACTURERS THAT MEET THE CONFIGURATION, PERFORMANCE AND SPECIFICATION REQUIREMENTS ARE ALSO ACCEPTABLE.

## FIN TUBE CONVECTOR

| TAG # | TYPE | BTU/FT | TUBE SIZE | FINS/FT | EWT (°F) | LWT (°F) | EAT (°F) | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|
| FT-1 | FIN TUBE BASE BOARD AND ENCLOSURE | 690 | 3/4" | 50 | 180 | 160 | 65 | VULCAN LC209 VR04 | 1 |
| FT-2 | HEAVY DUTY FIN TUBE BASE BOARD AND SLOPE TOP ENCLOSURE | 1040 | 3/4" | 40 | 180 | 160 | 65 | VULCAN JV3-ARS-V/C3/4-434 | 2 |

NOTES:
1. 18 GA. STEEL ENCLOSURE PAINTED WHITE. LENGTH NOTED ON DRAWING IS ACTIVE LENGTH OF FINNED TUBE.
PROVIDE ADDITIONAL ENCLOSURE TO COVER RUNOUT PIPING WHERE REQUIRED. PROVIDE END CAPS.
2. 16 GA. STEEL ENCLOSURE. COLOR BY ARCHITECT FROM MANUFACTURER'S STANDARD PALETTE PAINTED . LENGTH NOTED ON DRAWING IS ACTIVE LENGTH OF FINNED TUBE.
PROVIDE ADDITIONAL ENCLOSURE TO COVER RUNOUT PIPING WHERE REQUIRED. PROVIDE END CAPS.

## HOT WATER DUCT COIL

| TAG # | TYPE | SIZE (IN X IN) | CFM | CAPACITY (MBH) | VELOCITY (FPM) | AIR PD (IN WC) | GPM (AT 180°F) | WATER PD (FT WC) | EAT (°F) | ROWS | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC-1 | FINNED COIL IN MANUFACTURERS CASING | 9x9 | 380 | 6.7 | 700 | 0.2 | 0.8 | 5.0 | 48 | 1 | US AIRCOIL F108-9X9 | 1 |

NOTES: 1. PROVIDE VENT ON EACH COIL

## REGISTERS, GRILLES AND DIFFUSERS

| TAG # | TYPE | MAX CFM | FACE SIZE (W" X H") | NECK SIZE (INCHES) | MAX SP DROP (INCHES W.C.) | MAX NC | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|
| R-1 | RETURN, ALUMINUM, 35° FIXED BLADE, 24"X24" CEILING MODULE WHITE FINISH | 75 | 6X4 | 6X4 | 0.1 | 20 | TITUS 355FL | 1,2 |
| R-1A | RETURN, ALUMINUM, 35° FIXED BLADE, DUCT MOUNT, WHITE FINISH | 75 | 6X4 | 6X4 | 0.1 | 20 | TITUS 355FL | 1,2 |
| R-2 | RETURN, ALUMINUM, 35° FIXED BLADE, SURFACE OR DUCT MOUNT, WITH DAMPER, WHITE FINISH | 200 | 8X8 | 8X8 | 0.08 | 20 | TITUS 355FL | 1,2 |
| R-3 | RETURN, ALUMINUM, 35° FIXED BLADE, SURFACE MOUNT, WHITE FINISH | 915 | 30X36 | 30X36 | 0.01 | 15 | TITUS 355FS | 1,2 |
| S-1 | SUPPLY, ALUMINUM, SINGLE BLADE ADJUSTABLE PATTERN, 24"X24" CEILING MODULE , WHITE FINISH | 110 | 6X6 | 6X6 | 0.08 | 20 | TITUS 301FL | 1,2 |
| S-1A | SUPPLY, ALUMINUM, SINGLE BLADE ADJUSTABLE PATTERN, DUCT MOUNT, WHITE FINISH | 110 | 6X6 | 6X6 | 0.08 | 20 | TITUS 301FL | 1,2 |
| S-2 | SUPPLY, ALUMINUM, SINGLE BLADE ADJUSTABLE PATTERN, SURFACE OR DUCT MOUNT, WITH DAMPER, WHITE FINISH | 280 | 10x10 | 10x10 | 0.08 | 20 | TITUS 301FL | 1,2 |
| S-3 | SUPPLY, ALUMINUM, SINGLE BLADE PARALLEL TO SHORT DIMENSION, ADJUSTABLE PATTERN, SURFACE MOUNT, WHITE FINISH | 460 | 30X8 | 30X8 | 0.03 | 20 | TITUS 301FS | 1, 2 |

NOTES:
1. PROVIDE EACH DIFFUSER, REGISTER AND GRILLE WITH ITS OWN VOLUME DAMPER.
2. TYPICAL MANUFACTURER AND MODEL ARE FOR REFERENCE ONLY. PRODUCTS FROM OTHER MANUFACTURERS THAT MEET THE PERFORMANCE AND SPECIFICATION REQUIREMENTS ARE ALSO ACCEPTABLE.

## CEILING FANS

| TAG # | TYPE | SERVES | CFM | DIAMETER | COVERAGE (SQ. FT) | ELECTRICAL VOLTAGE | PHASE | AMPS | TYPICAL MANUFACTURER AND MODEL | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| CF-1 | CEILING SUSPENDED PADDLE FAN | LIBRARY | 9,000 | 72" | 1200 | 120 | 1 | 0.46 | MONTE CARLO "MINIMALIST MAX" 3MNLR72RZWD | 1 |
| CF-2 | CEILING SUSPENDED PADDLE FAN | COMMUNITY | 2,755 | 42" | 500 | 120 | 1 | 0.43 | MONTE CARLO "VISION II" 3VNR42RZWD | 2 |
| CF-3 | CEILING SUSPENDED PADDLE FAN | COMMUNITY | 2,755 | 42" | 500 | 120 | 1 | 0.43 | MONTE CARLO "VISION II" 3VNR42RZWD | 2 |

NOTES:
1. PROVIDE WITH MANUFACTURERS 18" DOWNROD, 6 SPEED HARD WIRED WALL MOUNTED CONTROL SWITCH WITH REVERSE FUNCTION MONTE CARLO ESSWC-5-WH
2. PROVIDE WITH MANUFACTURERS 12" DOWNROD, 3 SPEED HARD WIRED WALL MOUNTED CONTROL SWITCH WITH REVERSE FUNCTION.

12-21-16 Issued for Review
4-12-17 Issued for Bidding

STATE OF MAINE
ANDREW W. HOLBROOK
No. 9103
4/12/2017
LICENSED
PROFESSIONAL ENGINEER
Date: 04/25/17


ARCHITECT:
**REED & CO. ARCHITECTURE**
46 CUMBERLAND AVE
PORTLAND, ME 04101
207 871 5678

INTERIOR DESIGNER:
COLE DESIGN
PO BOX 361
KITTERY, ME 03904
207 653 0083

STRUCTURAL ENGINEER
SHELLEY ENGINEERING
PO BOX 1030
GRAY, ME 04039
207 657 8031

MECHANICAL ENGINEER:
HOLBROOK ENGINEERING
52 HEATH RD
SACO, ME 04072
207 283 9127

ELECTRICAL ENGINEER:
BARTLETT DESIGN
942 WASHINGTON STREET
BATH, MAINE 04530
207 443 5447


PROPOSED IMPROVEMENTS

PEAKS ISLAND COMMUNITY CENTER & LIBRARY

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HVAC SCHEDULES

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